What is a Begonia?

American Begonia Society (ABS)

Sacramento Branch

Wendy Corby, 2016

“That’s a begoni

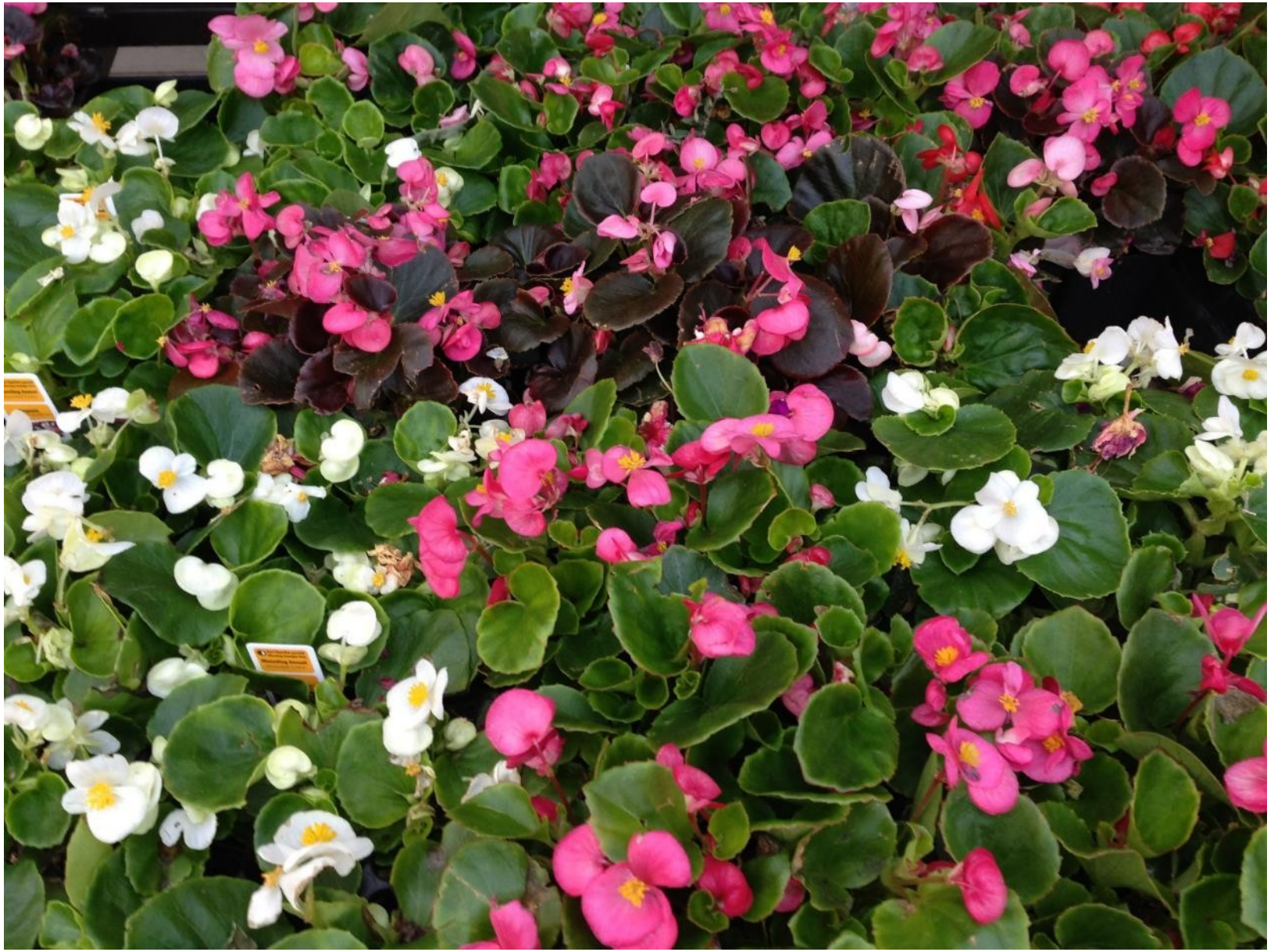
What plant is that?

Are you sure?

Does it bloom?

Most Common Begonia

Most people know begonias as those plants they see at local retailers (nurseries and home improvement stores, etc.).



Flat of wax (*semperfloren*) begonias.

Photo by Wendy Corby

Common Begonias

Or people see tuberous begonias like these hanging baskets.

Tuberous begonias

Begonia Family

But *Begonia* is a LARGE family.

B. ‘King Tut’
(grown by Marlene Sherman)

Photo by Wendy Corby

Scientific Name
Begoniaceae

(suffix ceae denotes family)

The family *Begoniaceae* is in the major group *Angiosperms* (flowering plants). Begoniaceae is a family of flowering plants with over 1,500 species occurring in the

Begoniaceae consists of two genera.

1. *Hillebrandia*, with one species, and

Hillebrandia is endemic to Hawaii.

2. *Begonia*, with over 1,500 species.

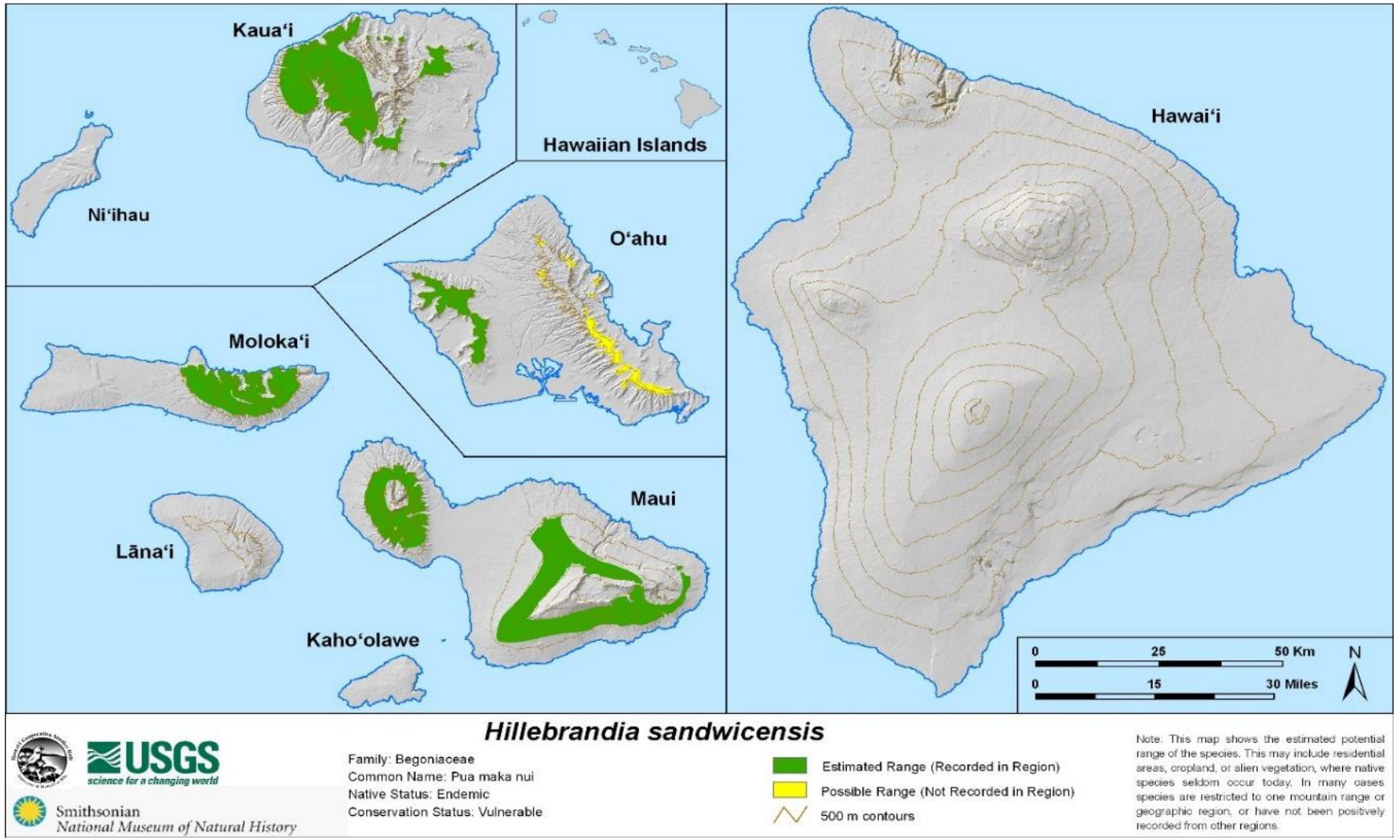
Begonia is the 5th largest angiosperm genus in the world.

(The genus Symbegonia is now included in Begonia.)

Scientific Name: *Hillebrandia sandwicensis*

Rank: Genus

Hillebrandia sandwicensis is a species of a herbaceous perennial flowering plant native to some of the Hawaiian Islands. Common names include aka ‘aka ‘awa and pu’a maka nui. It is the only member of the *Begoniaceae* native to the Hawaiian archipelago (chain of islands).


Kaua‘i
Ni‘ihau
Hawaiian Islands
O‘ahu
Moloka‘i
Maui
Lāna‘i
Kaho‘olawe
Hawai‘i
0 25 50 Km
0 15 30 Miles
N
Hillebrandia sandwicensis
USGS
science for a changing world
Smithsonian
National Museum of Natural History
Family: Begoniaceae
Common Name: Pua maka nui
Native Status: Endemic
Conservation Status: Vulnerable
Estimated Range (Recorded in Region)
Possible Range (Not Recorded in Region)
500 m contours
Note: This map shows the estimated potential range of the species. This may include residential areas, cropland, or alien vegetation, where native species seldom occur today. In many cases species are restricted to one mountain range or geographic region, or have not been positively recorded from other regions.

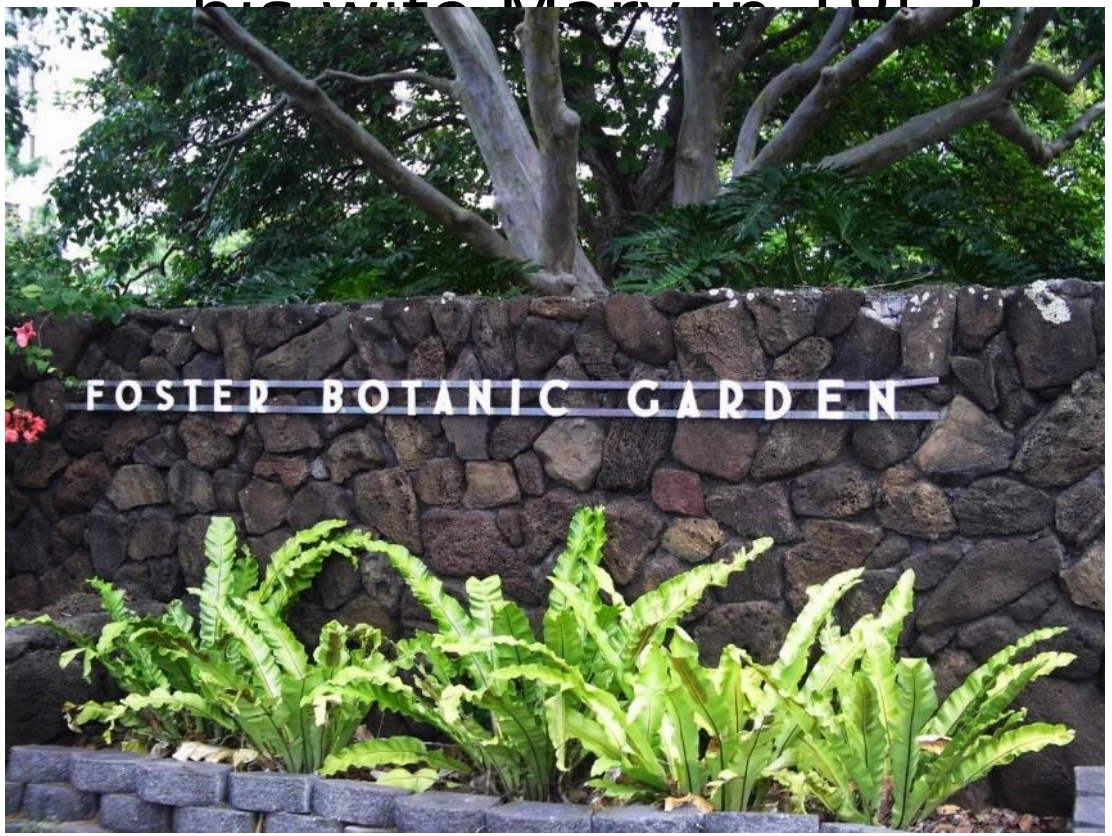
Dr. William Hillebrand

Hillebrandia sandwicensis was named in honor of Dr. William Hillebrand, a German physician and botanist specializing in the Hawaiian flora. In 1850, Hillebrand lived at what is now Foster Botanic Garden in Honolulu.

Foster Botanic Garden

Honolulu, Hawaii

Started as a private garden (13½ acres) created by German physician-botanist, William Hillebrand and his wife Mary in 1853

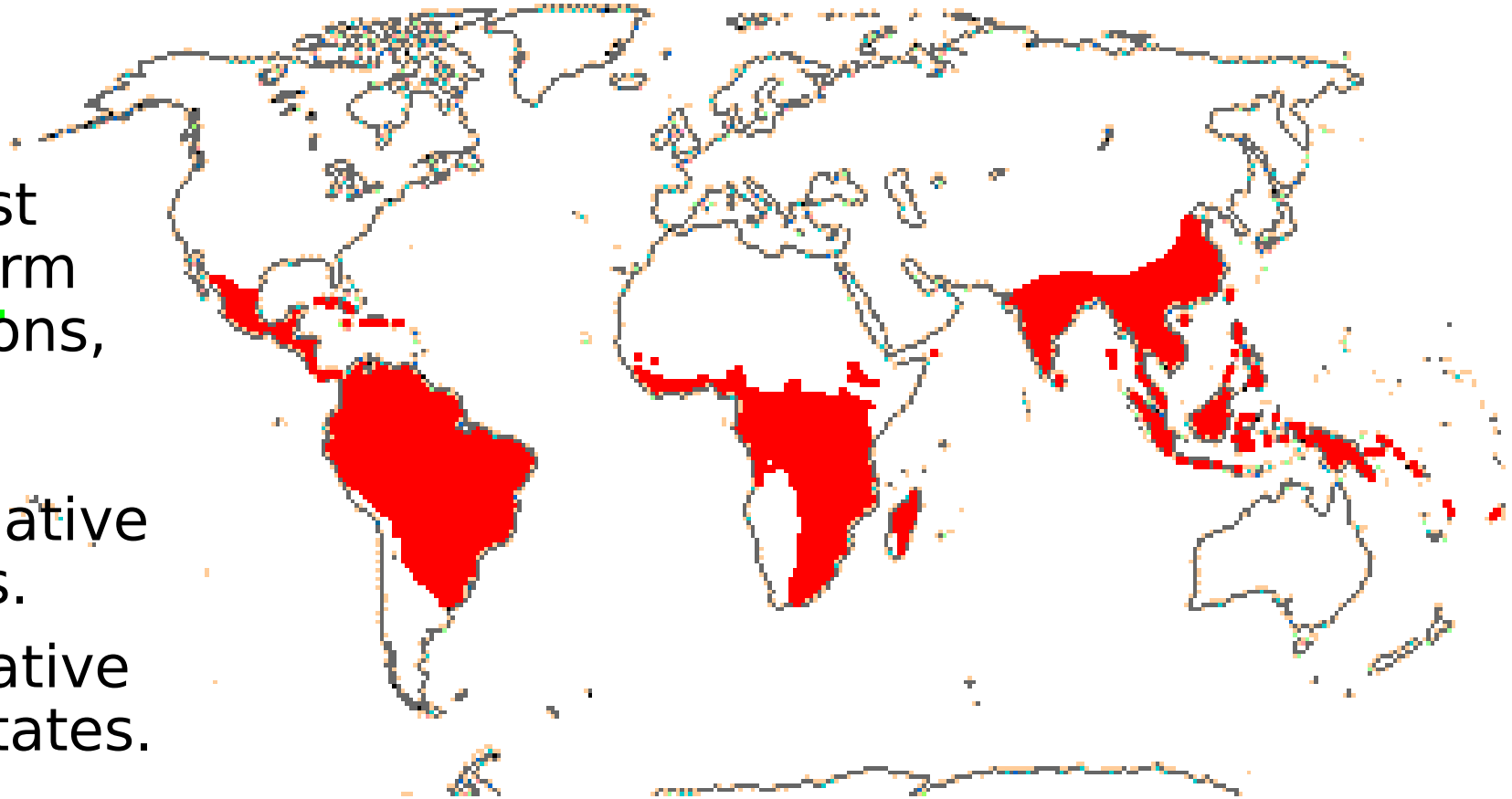


Phylogenetic work supports *Hillebrandia* as the sister taxon to the rest of the

The genus Begonia has a pantropical distribution.

The family is distributed throughout most tropical and warm temperate regions, with a large percentage of species being native to the Americas.

No species is native to the United States.



Scientific Name:
Begoni

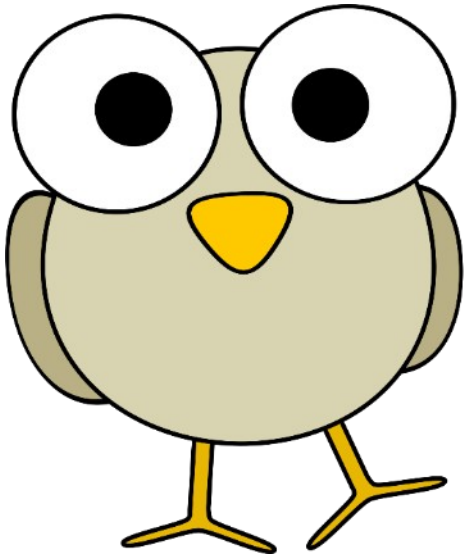
The begoni
was named
French bota
Charles Plu
Michel Bég
governor o
Domingo (n
Haiti) and a
of botany (as well
as a passionate
plant collector).

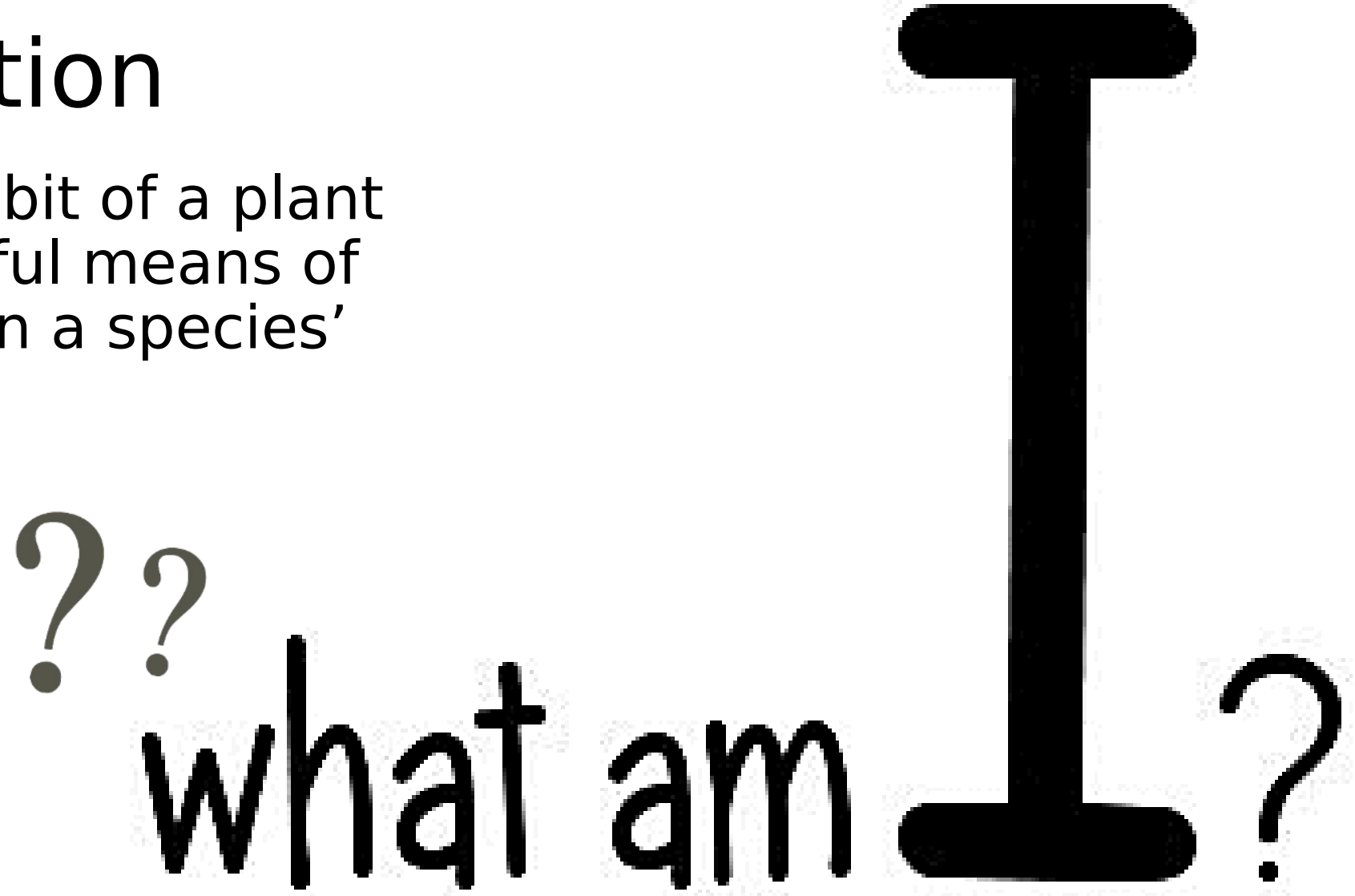
Plumeria

1710)

Begonia identification

The general habit of a plant provides a useful means of narrowing down a species' identity.





3 Groups of Begonias?

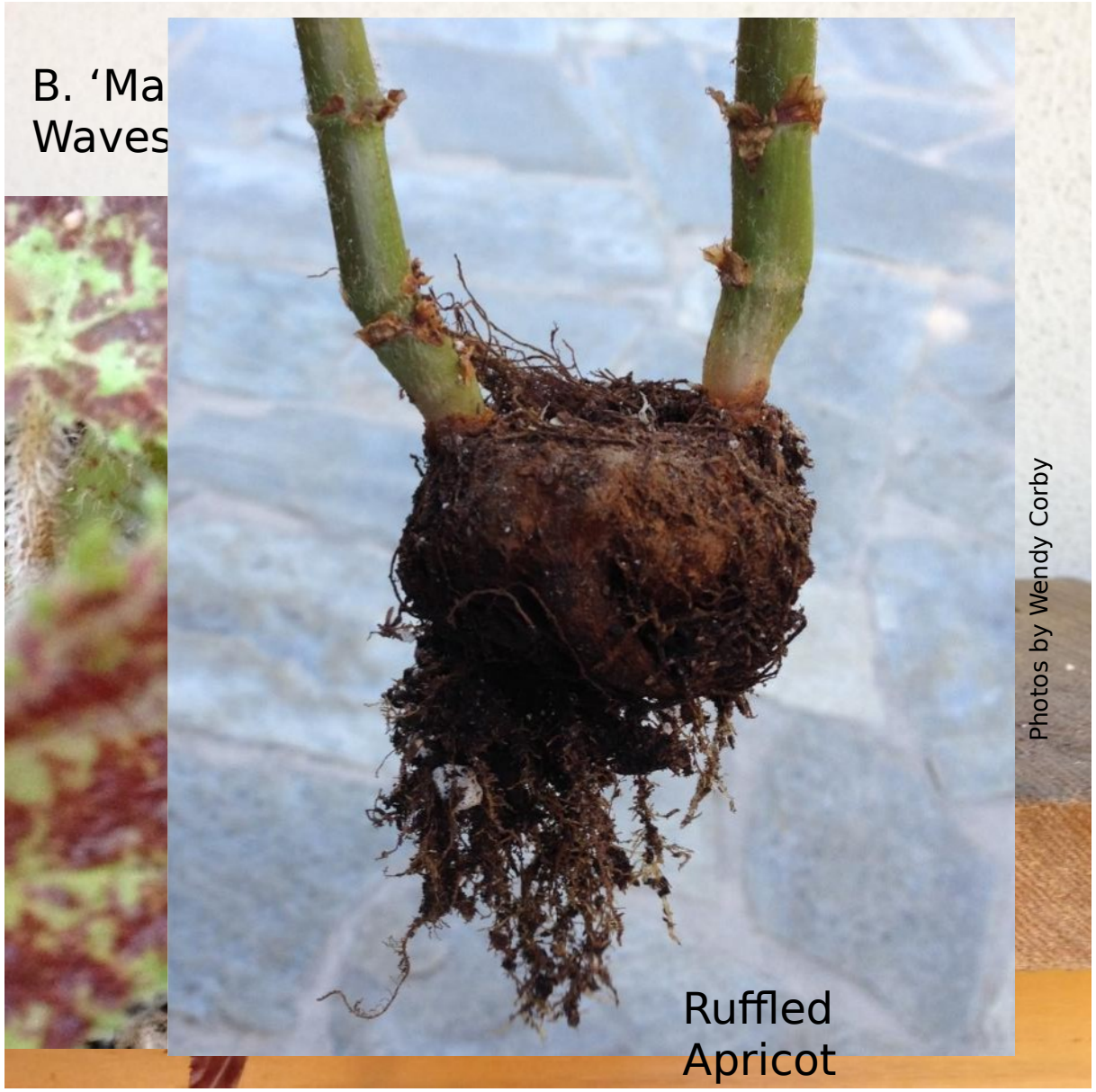
Horticulturists divide begonias into 3 groups based on rootstock:

1. Fibrous-rooted

2. Rhizomatous

3. Tuberous-rooted

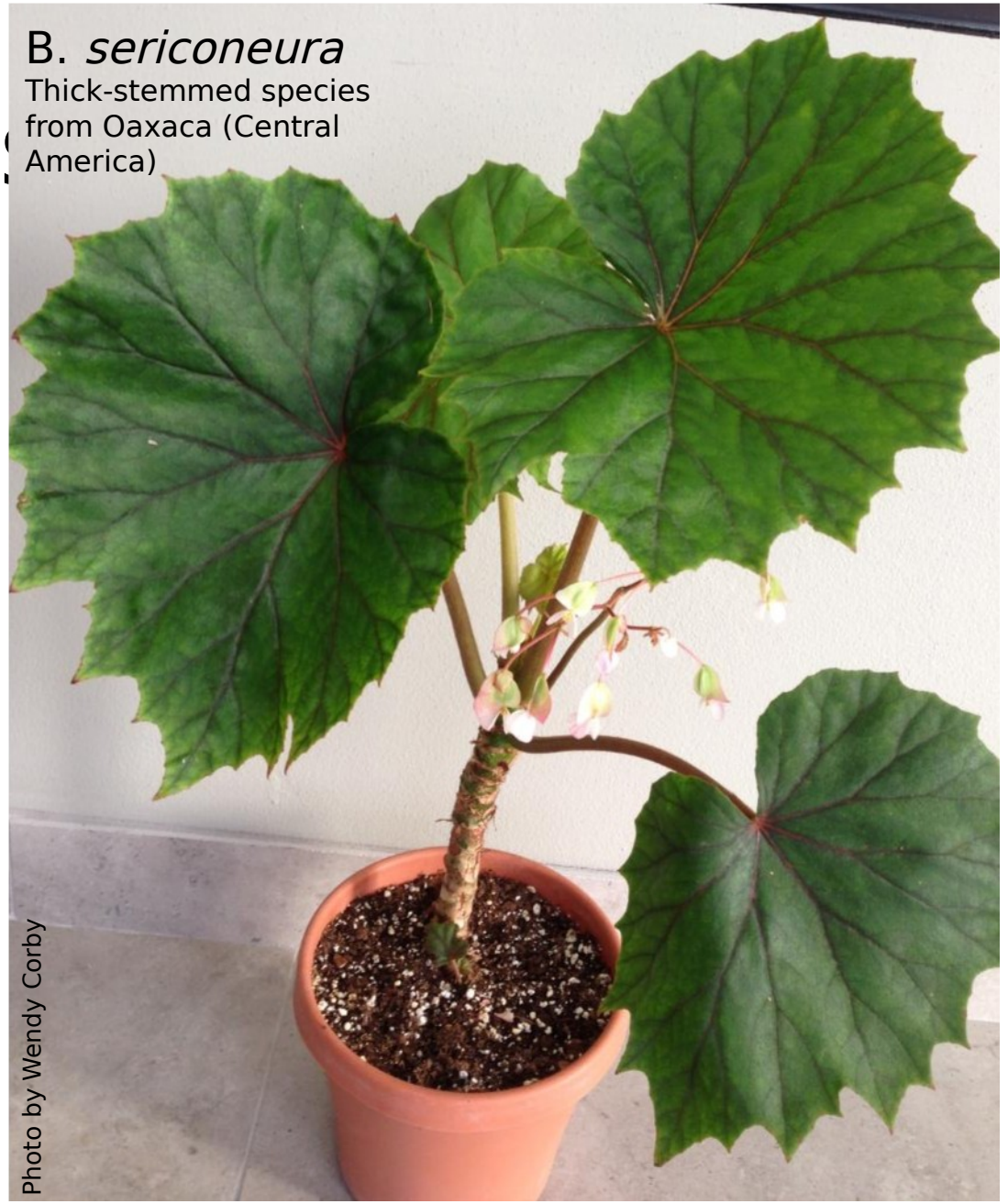
Fibrous-rooted is a misnomer as all begonias have fibrous roots. A better label is fibrous-only-rooted (not having a rhizome or tuber).



4 Groups of Begonias

Other Horticultural classifications:

1. Tuberous
2. Herbaceous
3. Shrub
4. Stemless or rhizomatous



5 Groups of Begonias?

Growers in Europe recognize 5 different groups:

1. Elatior
2. Lorraine
3. Semperflorens-cultorum
4. tuberous
5. foliage

Begonia Classifications

The ABS divides begonias into 8 groups:

1. Cane-like (cane-stem or angelwing)
2. Rex (painted leaf)
3. Rhizomatous
4. *Semperflorens* (wax leaf)
5. Shrub-like
6. Thick-stemmed
7. Trailing-Scandent
8. Tuberous (including Tuberhybrida)

1. Cane-like

Canes are sub-divided by:

A. Superba-type

B. Mallet-type

C. All others

1. Low (under 2’ at maturity)
2. Intermediate (2’ – 4’ at maturity
3. Tall (over 4’ at maturity)

Photo by Wendy Corby

Cecile’

2. Rex

Rex are subdivided by:

A. Small-leaved

(generally under 3” at maturity)

B. Medium-leaved

(generally 3”-6” at maturity)

C. Large-leaved

(generally over 6” at maturity)

D. Upright-stemmed

Each category is also divided by spiral and non-spiral leaved.

B. ‘Wanda Macnair’

3. Rhizomatous

This division is sub-divided by leaf size:

A. Small-leaved

(generally under 3” at maturity)

B. Medium-leaved

(generally 3”-6” at maturity)

C. Large-leaved

(generally 6”-12” at maturity)

D. Giant-leaved

(generally over 12” at maturity)

and by leaf shape.

Leaf shapes

1. Entire/subentire
A leaf without incisions, one having an even margin.

2. Lobed
A leaf with a rounded or pointed projection.

3. Cleft
A leaf cut about halfway between the margin and midrib.

4. Parted
A leaf cut more than ⅔ from the outer edge to the petiole attachment.

5. Compound
A leaf having two or more leaflets.

6. Crested
A leaf margin will be either ruffled and/or frilled and curled.

7. Spiral
The basal lobes of the leaf overlap, forming a spiral.

8. Distinctive foliage
The begonia's outstanding foliage shows a distinguishing difference from other foliage.

B. *bullatifolia*
'Escargot'

4. *semperflorens*

Species are sub-divided by

A. *cucullata*-type

B. *schmidtiana*-type

Cultivars are sub-divided by

C. Single-flowered

D. Semi-double / double flowered

E. Variegated foliage

5. Shrub-like

Shrubs are divided by

A. Bare-leaved

B. Hairy-leaved

C. Distinctive foliage (Unusual surface and/or coloring; Listida-like type; compact-type)

B. *foliosa var. miniata* (Colombia)

6. Thick-stemmed

Thick-stemmed are divided by

A. Bare-leaved

B. Hairy-leaved

C. Trunk-like

D. Thickset

7. Trailing-Scandent

Species and cultivars are divided into:

A. Trailing

B. Scandent

B. *listada*

8. Tuberous

Tuberous are divided by:

A. Semi-tuberous species
B. Tuberous, Species and first generation hybrids
C. Semi-tuberous hybrids
D. hiemalis and *hiemalis*-like
E. chiemantha and *chiemantha*-like
F. Bulbous

There’s usually a separate division for Tuberhybrida

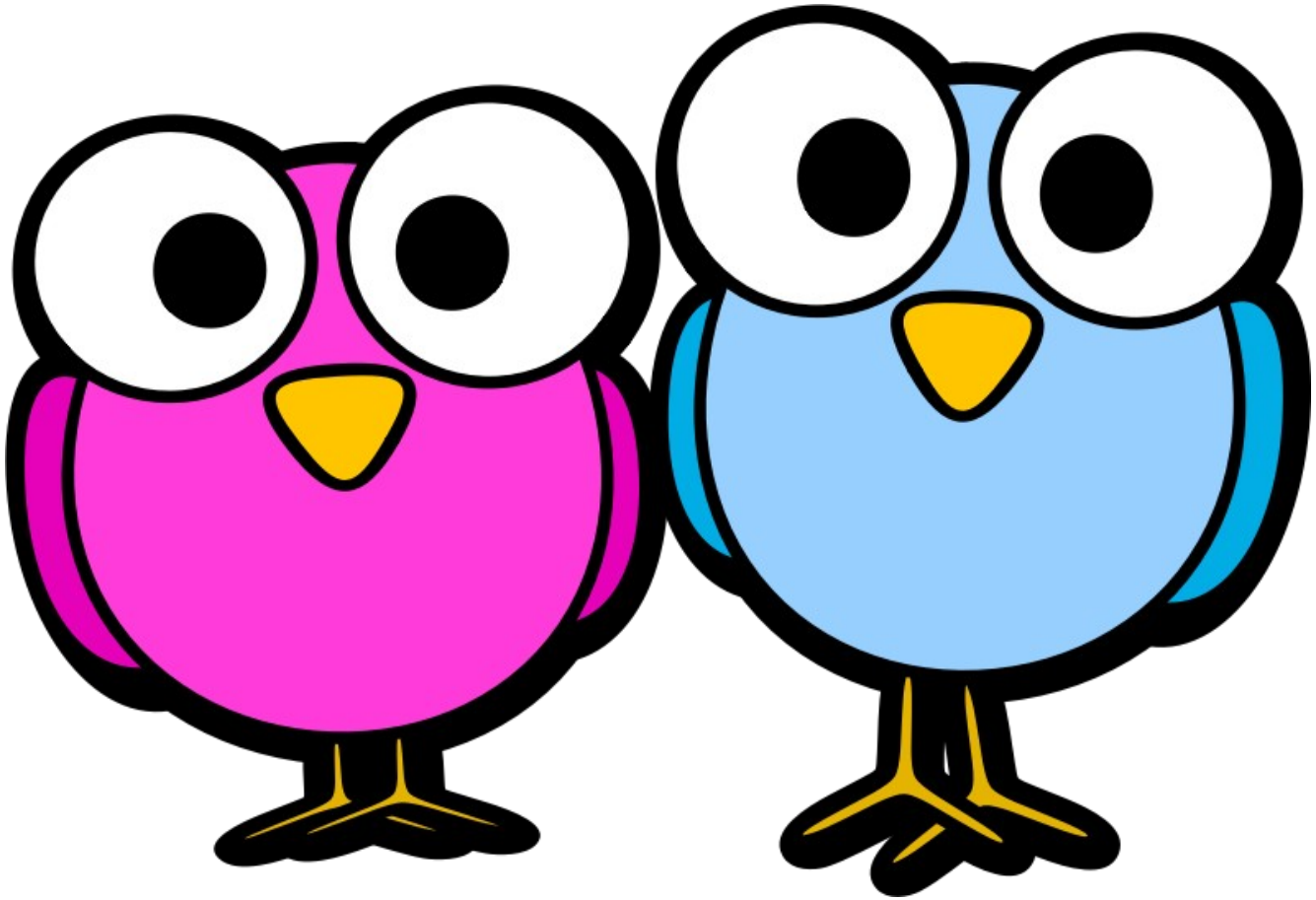
ABS Groups

Yet these 8 groups do not correspond to any formal taxonomic groupings or phylogeny, and many species and hybrids have characteristics of more than one group (or do not fit well in any of them).

Begonia Characteristics

With such diversity, what exactly is a begonia?

Visual identification is mainly from the flowers and the leaves.



1. Begonia blooms are <u>unisexual</u>

(dioecious).
Blooms are either male or female.

2. Begonia blooms have tepals.

sepals.

B. ‘Pink

3. Begonias are <u>monoecious</u>.

Plants which have separate male and female flowers on the same plant.

With few exceptions, begonias have separate male and female flowers on the same plant, although male and female blooms may open at different times.

4. Begonia blooms have <u>inferior ovaries</u>.

An ovary embedded within a flower, below the other flower parts.

Female flowe
have a winge
ovary behinc
tepals. It us
has 3 wings.

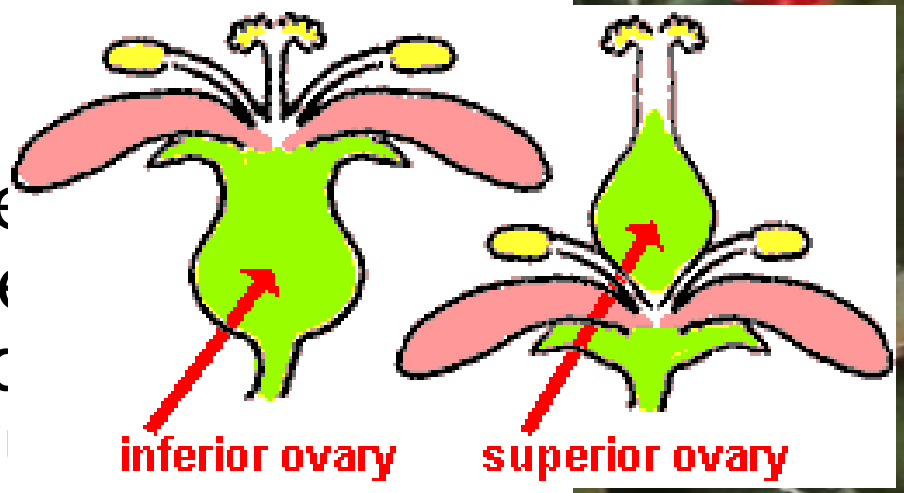


Photo by Wendy Corby

5. Begonia leaves are most often <u>alternate</u>.

(Leaves that occur one at a time on alternating sides of the stem.)

B. ‘My Special Angel’

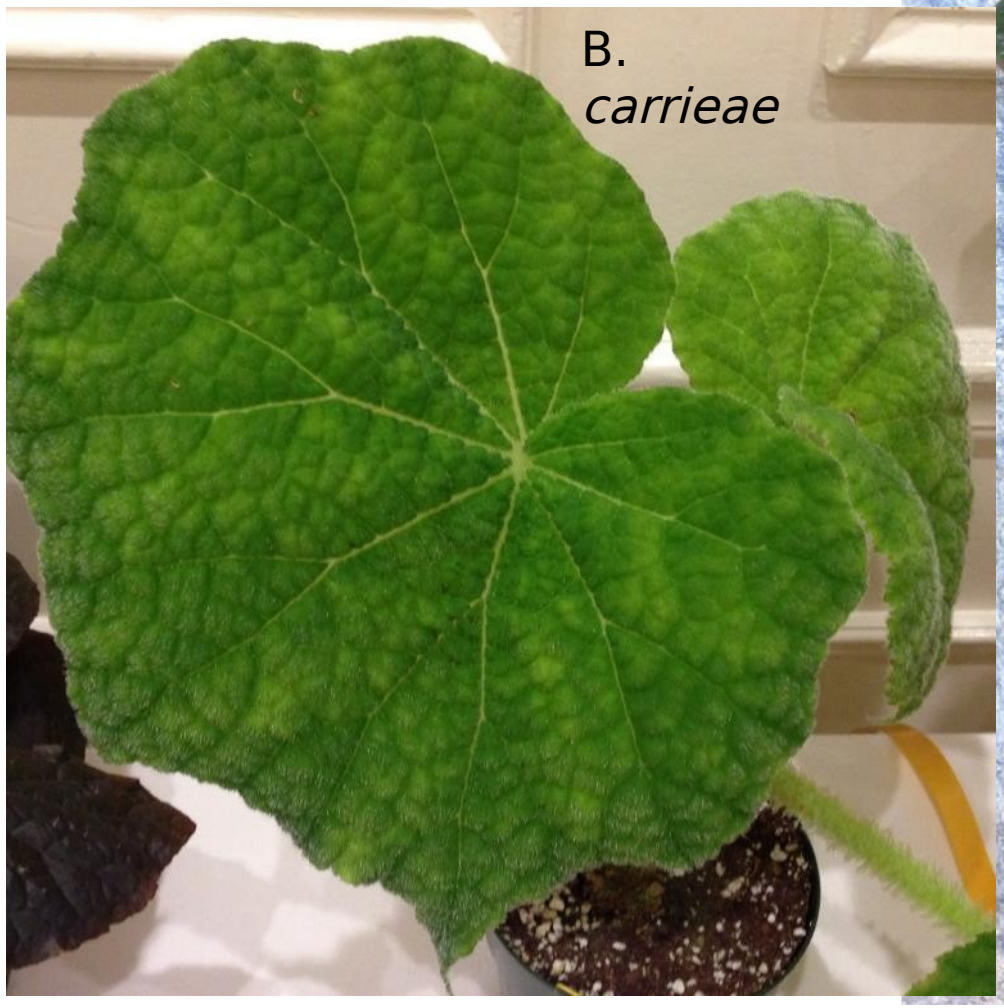
Photos by Wendy Corby

B. ‘Black Jack’

6. Begonia leaves are usually <u>asymmetrical</u>.

(unequal-sided)

B. U485



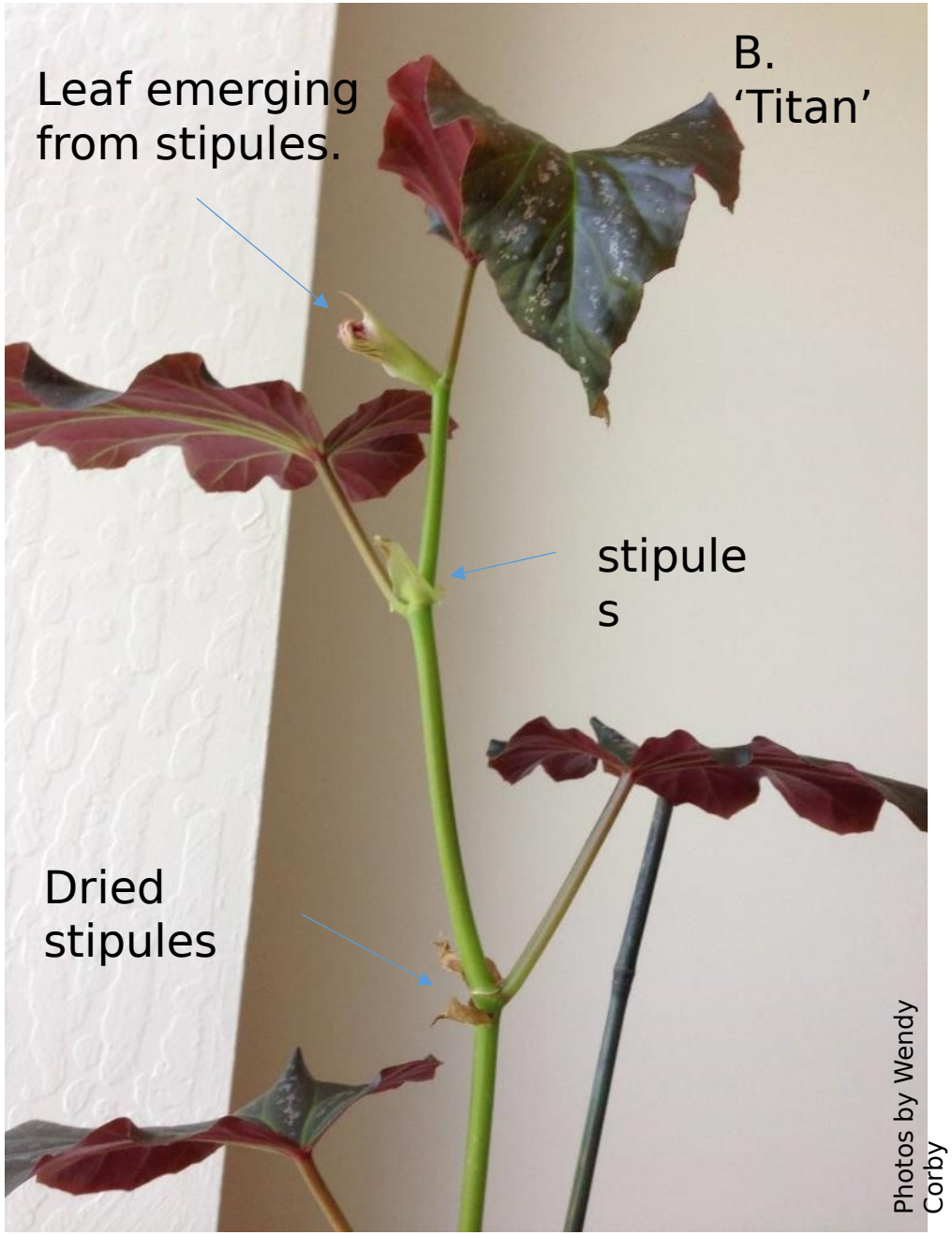
B. *carrieae*

B. 'Lucerna'

Photos by Wendy Corby

7. Begonia leaves emerge from <u>stipules</u>.

An appendage found at the base of a leaf where it joins a branch or st



8. Begonias are he

There are usually distinct nodes (bumps) on the stem.

Begonia *fimbristipula* herbal tea (or Phoenix Tea)

9. Most begonias are perennial.

B. ‘Tiger

Photos by Wendy Corby

B. ‘Moonlit Snow’

10. Begonia seeds are unique.

The seeds of Begonia are unique in the plant kingdom, since they possess a ring of collar cells between a seed lid and the remainder of the testa cells.

Begonia seeds are among the smallest in the plant kingdom.

Summary of what makes a begonia

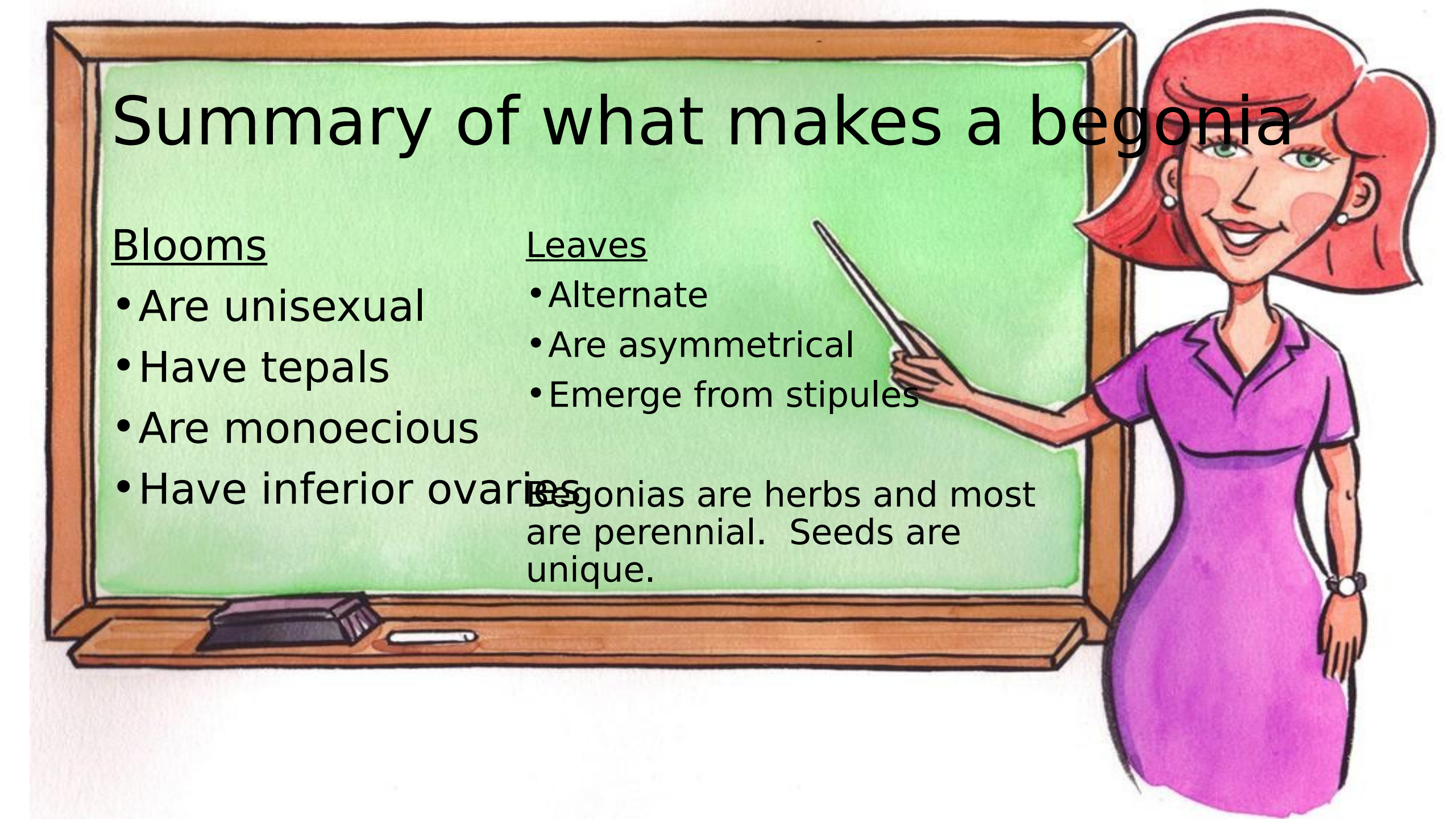
<u>Blooms</u>

- Are unisexual
- Have tepals
- Are monoecious
- Have inferior ovaries

<u>Leaves</u>

- Alternate
- Are asymmetrical
- Emerge from stipules

Begonias are herbs and most are perennial. Seeds are unique.



Exceptions

Nonetheless, some species do not exhibit any of these features and can only be identified as begonias by a combination of subtle botanical characteristics.

Source: iBegonias; Photo: Kingsley Langenberg

What?

I give up!

So how to know?

Leave it to the botanists!

That’s how I know it’s a begonia!

Dr. Mark Tebbitt sitting outside the greenhouse at the Roger Williams Park Botanical Center in Providence, RI, during a tour for the 2015 ABS National Convention.

“It’s a begonia!”

B. *brevirimosa*

B. *heracleifolia* var.

Photos by Wendy Corby

It’s a Begonia.

“That’s a begonia!”

B. ‘Denver Lace’

B. ‘Esther Albertine’

Photos by Wendy Corby

“Happiness is growing begonias.” --Joan

Photos by Wendy Corby

Begonia Trivia

The Grateful Dead sung this popular song in 1974.

SCARLET BEGONIAS
Music by JERRY GARCIA
Words by ROBERT HUNTER
Moderately fast
mf
I was walk - in' 'roun' Green - wich
Square,
not a
chill to the win - ter but a sip to the air
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Begonia Trivia

A goat eats a begonia patch belonging to Miranda Hillard (played by Sally Field) during her son’s birthday party